

4.5 PSP Cover Sheet (Attach to the front of each proposal)

Proposal Title: ARUNDO DONAX ERADICATION AND COORDINATION
 Applicant Name: SONOMA ECOLOGY CENTER
 Mailing Address: 205 FIRST ST. WEST, SONOMA, CA 95476
 Telephone: 707 996 9744
 Fax: 707 996 1744
 Email: SEC@vdm.com

Amount of funding requested: \$ 818,045 for 3 years

Indicate the Topic for which you are applying (check only one box).

- | | |
|--|--|
| <input type="checkbox"/> Fish Passage/Fish Screens | <input checked="" type="checkbox"/> Introduced Species |
| <input type="checkbox"/> Habitat Restoration | <input type="checkbox"/> Fish Management/Hatchery |
| <input type="checkbox"/> Local Watershed Stewardship | <input type="checkbox"/> Environmental Education |
| <input type="checkbox"/> Water Quality | |

Does the proposal address a specified Focused Action? yes no NA ✓

What county or counties is the project located in? All Bay-Delta watershed counties

Indicate the geographic area of your proposal (check only one box):

- | | |
|---|--|
| <input type="checkbox"/> Sacramento River Mainstem | <input type="checkbox"/> East Side Trib: _____ |
| <input type="checkbox"/> Sacramento Trib: _____ | <input type="checkbox"/> Suisun Marsh and Bay |
| <input type="checkbox"/> San Joaquin River Mainstem | <input type="checkbox"/> North Bay/South Bay: _____ |
| <input type="checkbox"/> San Joaquin Trib: _____ | <input checked="" type="checkbox"/> Landscape (entire Bay-Delta watershed) |
| <input type="checkbox"/> Delta: _____ | <input type="checkbox"/> Other: _____ |

Indicate the primary species which the proposal addresses (check all that apply):

- | | |
|---|--|
| <input type="checkbox"/> San Joaquin and East-side Delta tributaries fall-run chinook salmon | <input type="checkbox"/> Spring-run chinook salmon |
| <input type="checkbox"/> Winter-run chinook salmon | <input checked="" type="checkbox"/> Fall-run chinook salmon |
| <input type="checkbox"/> Late-fall run chinook salmon | <input type="checkbox"/> Longfin smelt |
| <input type="checkbox"/> Delta smelt | <input checked="" type="checkbox"/> Steelhead trout |
| <input type="checkbox"/> Splittail | <input type="checkbox"/> Striped bass |
| <input type="checkbox"/> Green sturgeon | <input type="checkbox"/> All chinook species |
| <input checked="" type="checkbox"/> Migratory birds | <input checked="" type="checkbox"/> All anadromous salmonids |
| <input checked="" type="checkbox"/> Other: <u>garter snake, Swainson's hawk, Valley Elderberry Longhorn beetle, Red legged frog</u> | |

Specify the ERP strategic objective and target (s) that the project addresses. Include page numbers from January 1999 version of ERP Volume I and II:

ERP Strategic Plan: halt introduction of NIS into Central Valley (p43), focus NIS control on species whose control is feasible & of greatest benefit (p44), restore riparian & freshwater fish habitat (p42)

***Arundo donax* Eradication and Coordination
a project of Team *Arundo* del Norte**

Primary Contact: - Richard Dale
Sonoma Ecology Center
205 First Street West
Sonoma, CA 95476
phone: (707) 996-9744
fax: (707) 996-1744
email: sec@vom.com

Participants and Collaborators

Team *Arundo* del Norte
CERES
UC Davis Information Center for the Environment (ICE)
USDA Agricultural Research Service
Department of Water Resources
San Francisco Estuary Institute
University of California, Berkeley
CA Department of Fish and Game
US Environmental Protection Agency
Sonoma Ecology Center
City of Chico
Friends of the Creeks
San Francisquito Creek CRMP
Napa RCD
Putah Creek Council, Putah Creek Steering Committee
Napa Agricultural Commissioner
California Conservation Corps

Type of Organization and Tax Status: non-profit 501c3

Tax Identification Number: 94-313-6500

▪ Executive Summary

Team *Arundo* del Norte (TAdN) was formed in response to the urgent threat that *Arundo donax* (giant reed or giant cane) presents to the riparian and stream ecosystems of northern and central California. There are two pressing needs regarding *Arundo*: prompt on-the-ground eradication, and coordination of a region-wide effort. Sonoma Ecology Center (SEC), as a member of TAdN, proposes a three year umbrella project that would carry out CALFED's work with regard to the eradication and control of *Arundo*, the state's most invasive riparian weed. This project will direct funds to eradication partners in six watersheds that are prepared to immediately carry out *Arundo* eradication. These sites are on Putah Creek, Big Chico Creek, Sonoma Creek, Walnut Creek, Napa River, and San Francisquito Creek. The project will also provide much needed information exchange and coordination to other groups in the CALFED region, so that many more potential *Arundo* eradication and prevention efforts can proceed. We have strong interest already from several watersheds including Stony Creek, Petaluma River, and San Joaquin tributaries, as well as land management agencies wrestling with *Arundo* infestations.

This proposal will create an umbrella that will reduce the need for CALFED to administer numerous individual projects while providing a structure for long term eradication and monitoring of this NIS throughout the CALFED solution area. This approach is more efficient than funding many separate uncoordinated eradication efforts. It will prevent small infestations from ballooning into disasters, will consolidate project funding applications to reduce agency workloads, and will focus *Arundo* related efforts where they will be most effective. Through TAdN's close links to watershed groups, agencies, and universities, information gathered by this project on *Arundo*'s distribution patterns, ecological impacts, and eradication methods will be widely and immediately useful. TAdN members have collectively spent years addressing the *Arundo* threat, and are highly qualified to provide guidance and to carry out project objectives.

Through region-wide coordination and an acceleration of new project start-up using the best information available, Team *Arundo* del Norte seeks to address what we believe to be the single most damaging process for many CALFED streams. The objectives are to reduce *Arundo*'s negative impacts to valuable riparian and aquatic habitats, water supply, natural stream geomorphology, fire risk, and flood risk.

The cost for three years of funding for immediate eradication and monitoring, technical coordination and planning of future eradication work, and organization and dissemination of *Arundo*-related information is \$818,045. This cost is matched by \$305,036 in in-kind contributions.

Minimum requirements of the PSP have been met. Besides a short-term spike in downstream fine sediment supply, there are no adverse effects of *Arundo donax* eradication.

spraying instead of painting with herbicide may be more economical. Some groups will re-vegetate eradication sites after *Arundo* is removed. Follow-up treatments are usually necessary in the year or two after eradication, in addition to monitoring eradication and re-vegetation success (see Monitoring).

Deliverables: Eradication projects implemented at 26 sites in six watersheds by local partner and/or contractor. Monitoring plans written, monitoring programs established. Yearly progress reports to TAdN. Final report.

LEVEL 2: In addition to implementing the eradication proposed in Level 1, Level 2 would also address the urgent need for coordination and expertise among potential eradicators throughout the CALFED area. This Level of funding allows TAdN to take on CALFED's need for a regional strategy against *Arundo*. A full-time Coordinator will deliver strategy, information, fund-raising help, and stakeholder organization at sites needing eradication. TAdN expertise will prioritize eradication sites. Primary control over onsite eradication and monitoring activities will rest with the partner. This Level of funding provides a mechanism to train stakeholders to do their own eradication, and will position them to receive eradication funding.

Level 2 partners are not ready to begin eradication, but are strongly interested. They include both groups exploring eradication projects and sites needing eradication but lacking a constituency. Potential eradication partners typically go through a sequence of activities including site assessment, planning, finding funding, permitting, and finally eradication and monitoring. The Coordinator and TAdN will provide technical expertise, information transfer, stakeholder coordination, assistance with fund-raising and permitting, and planning advice to partners. Partners will be assisted in producing an Eradication Plan and Monitoring Plan (see Monitoring). Many groups or agencies have contacted TAdN eager for help in organizing and funding *Arundo* eradication work (see Local Involvement).

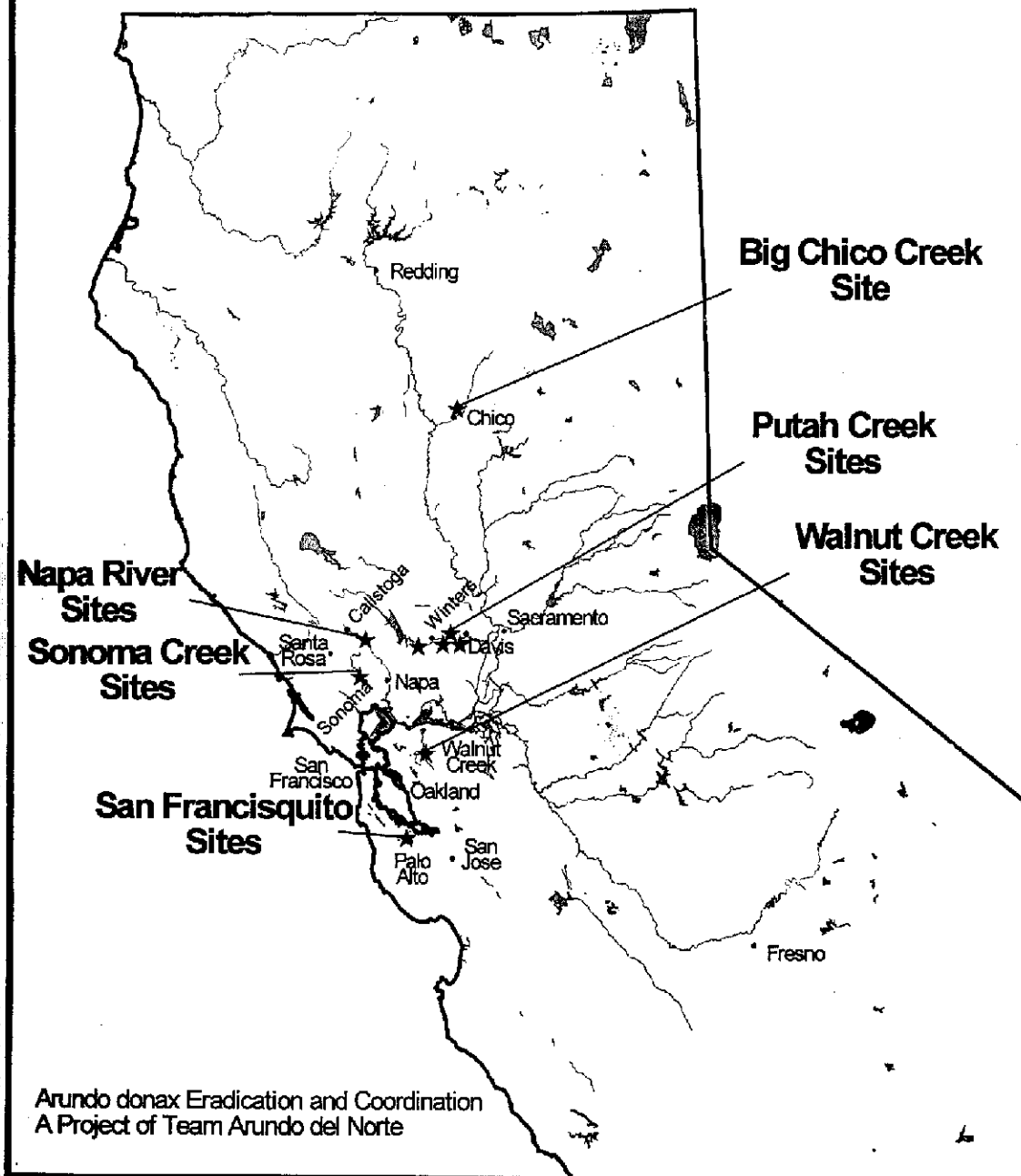
Deliverables: A dossier on at least 20 potential eradication partners, including detailed Eradication Plan (see Monitoring), funding possibilities, justification in the context of the regional *Arundo* problem, and monitoring plan. Yearly progress reports from Coordinator to TAdN. Final Report.

LEVEL 3: In addition to tasks proposed in Level 2, Level 3 will consolidate the mass of *Arundo*-related information available and make it readily available via the Internet. This project proposes to provide a comprehensive information clearinghouse for the exchange of data generated by ongoing eradication, research, and education projects, using Internet communications along with the efforts of the Coordinator to construct a framework for information sharing. In addition to the full-time Coordinator needed for Level 2, Level 3 requires a half-time person proficient in information technology and website design.

Task 1: Provide one-stop access to project descriptions and contacts, experiments, methodologies, and reports of results and data.

Deliverables: Web-accessible and updatable *Arundo* eradication/prevention project description database with instructions for participation. Online database based on the CERES Environmental Information Catalog and the ICE Natural Resource Projects Inventory that allows uploading and updating of *Arundo* project information. Project areas will be dynamically displayed on a map of California, with project information linked.

Location Map for Level 1 Arundo donax Eradication



Arundo-related projects (eradication, research, prevention, and education) throughout the Bay Delta and Sacramento Valley. Through TAdN's meetings, website, and email listserv there has already been an increase in coordination and communication between these disparate efforts that would otherwise be isolated. Coordination with others attempting *Arundo* control and those studying control methods and their effects greatly improves the information resources available to a project and its opportunities to share costs involved in planning and implementation. Production of outreach materials and guidance publications for use across Northern California will prevent duplication of these efforts and allow local projects to concentrate on educating their community and eradication in their streams. The Coordinator funded by this project, particularly the *Arundo* information system (Level 3 funding) will enhance this communication and resource-sharing, and build the resource base available to those seeking guidance and assistance in their efforts. Technology and databases that already exist at the UC Davis Information Center for the Environment (ICE), San Francisco Estuary Institute (SFEI), and the California Resources Agency's CERES Program will be utilized to take advantage of work already done.

Projects collaborating with Team *Arundo* del Norte are:

Eradication efforts:

- Cache Creek Conservancy— investigating application of large equipment for cutting and mulching *Arundo* in situ with Pestmaster Services
- Burch Creek Project by the DWR SB 1086 program, Tehama county, and CSU Chico

Mapping/Monitoring:

- UC Berkeley *Arundo* mapping and monitoring project now being proposed to CALFED: "Distribution and Status of *Arundo donax* (Giant reed) in the Bay-Delta Watershed," by Tom Dudley and Tracy Benning, in cooperation with San Francisco Estuary Institute and UC Davis.
- The San Francisco Estuary Institute (SFEI)'s EcoAtlas is being offered as a context of ecological GIS layers for the inclusion of *Arundo* distribution maps
- UC Davis Information Center for the Environment (ICE)'s ICEMAPS program is interested in serving *Arundo* distribution data to the public as part of its online map-making system

Research:

- Department of Fish and Game— *Arundo* control research project currently underway, funded by EPA, to investigate the effects of Roundup and Rodeo on invertebrates and amphibians
- USDA Agricultural Research Service— investigation into the opportunities for biocontrol of *Arundo donax*
- California Exotic Pest Plant Council— work with composting to eliminate the need for burning biomass; reducing accidental new introductions of *Arundo*.

Education:

- Sonoma Ecology Center—EPA-funded production of educational and outreach materials in print and video for landowners, watershed groups, and the general public, for use in Northern California.
- UC Davis Information Center for the Environment (ICE)'s Natural Resource Projects Inventory (NRPI)— provides information about *Arundo* projects with contacts for networking and sharing information.

This project directly addresses goals set forth by the CALFED NIS Strategic Plan and the ERP.

Arundo donax Eradication, a project of Team *Arundo* del Norte — page 7

■ Technical Feasibility

Arundo eradication work often requires permits, sometimes several of them. They may include US COE 404 or 401, DFG 1603, as well as permits from the county for grading, fire district burn permit, air quality district burn permit, water district permit, and county agricultural commissioner permit for herbicide application. There are no accounts of any sensitive species using *Arundo*, but they may live nearby or in the stream. Particularly if Endangered Species (FWS/NMFS) are involved, the permitting burden can easily stymie a watershed group's ability to remove *Arundo*. Nationwide or regional permits would greatly ease the burden on these local partners. TAdN member Paul Jones (EPA) has approached the San Francisco and Sacramento Corps of Engineers offices about issuing a Nationwide Permit 27 similar to the San Diego office's permit for southern California *Arundo* eradication work. We will continue the push for general permits from various agencies to cover *Arundo* eradication work in the rest of the state. Level 1 sites either have permits in-hand or have already consulted with permitting agencies at length. Therefore, no permitting obstacles are foreseen with Level 1 funding. Further levels of funding will incorporate permitting help for eradication partners.

To assure lasting success of eradication work, efficient use of eradication funds, and maximum efforts toward prevention versus repair of invasions, work done through this project will strongly encourage *Arundo* control efforts that:

- address issues of riparian zone health as a preventive measure against *Arundo* invasion or re-invasion
- intelligently account for *Arundo*'s downstream direction of invasion:
 - work from the top of the watershed down
 - address upstream propagule sources when working on a downstream site
 - pursue downstream entities to help fund eradication of upstream propagule sources

Timing of Proposed Work:

All three levels of funding entail a three-year project.

Level 1: Year 1, 2: eradication implementation. Year 2, 3: monitoring and re-treatment of sites.

Level 2: At least 5 partners per year poised to implement sound eradication projects, for 3 years.

Level 3: Year 1: Plan information system structure, assemble available information resources.

Year 2: collect new information and encourage contributions by projects generating data.

Monitoring Information

Hypothesis	Monitoring Parameters, Data Collection	Data Evaluation
The techniques used effectively eliminate <i>Arundo</i> infestations.	Measure <i>Arundo</i> kill-rate according to standards established by DFG (1998 Grey Lodge pesticide trials); photodocumentation for 2 yr, aerial if possible; amount of re-sprouting and re-treatment for two years after eradication; cost break-down	Compare kill-rate and cost of various methods. Compare rates of <i>Arundo</i> (re)-growth on treated and untreated sites.
Native riparian vegetation improves after <i>Arundo</i> removal.	photodocumentation for 2 yr, aerial if possible; if there is active revegetation after eradication, provide follow-up photos and success data for 3 years; qualitative description of riparian vegetation	Estimate value of riparian vegetation onsite before and after eradication.
Stream geomorphology normalizes after <i>Arundo</i> removal.	geomorphic assessment, including cross-sections if possible; monitor sand bar deposition and bank movement	Compare dynamics and geomorphology before and after treatment.
Many eradication sites will revegetate on their own.	photodocumentation for 2 yr, qualitative description of riparian vegetation	Compare actively and passively revegetated eradication sites on similar reaches or streams.
This approach to the <i>Arundo</i> issue in the CALFED area significantly reduces <i>Arundo</i> 's presence (as funding allows).	extent of area treated, estimate of region-wide <i>Arundo</i> acreage	Estimate region-wide reduction of <i>Arundo</i> that could be expected under alternative program or with no treatment.
Some eradication partners may have additional hypotheses and monitoring parameters.		

Arundo donax Eradication and Coordination Budget							
Task	Direct Labor Hours	Direct Salary & Benefits	Service Contracts	Material and Acquisition Costs	Miscellaneous and Other Direct Costs	Overhead and Indirect Costs	Total Cost
Level One							
Eradication							
Walnut Creek and tributaries			8,190	12,440		4,907	25,537
Putah Creek			195,000	24,000			219,000
Big Chico Creek			2,340	1,400	450		4,190
Sonoma Creek	128	1,600	61,375	2,000	2,500	400	68,003
Napa River			37,000				37,000
San Francisco Creek			5,926			10,800	16,726
Coordination and Administration	3,000	75,000				50,989	128,989
Level One: Total	3,128	76,600	309,831	39,840	2,950	67,096	499,445
Level Two							
Level one costs plus							
Coordination and Administration	3,000	75,000	6,000	4,500	3,000	18,300	109,800
Level Two: Total	6,128	151,600	315,831	44,340	5,950	85,396	609,245
Level Three							
Level two costs plus							
Coordination and Administration	6,000	150,000	6,000	6,000	6,000	34,800	208,800
Level Three: Total	12,128	301,600	321,831	50,340	11,950	120,196	818,045

Coordination of Cache Creek effort in partnerships with others to approach the problem on a larger scale

Raymond I. Carruthers, Research Leader, USDA-Agricultural Research Service, Western Regional Research Center, Exotic and Invasive Weed Research Unit
Biocontrol research.

Josh Collins, San Francisco Estuary Institute
Geographic information systems; spatial data integration and analysis for conservation and planning applications

Julie Cunningham, Environmental Specialist III, California Department of Water Resources
Technical and administrative staff to Sacramento River Riparian Habitat (SB1086) Program.

Mike Dannenberg, Deputy Agricultural Commissioner, Napa County Agricultural Commissioners Office
Agricultural pest management, control and eradication, bio-control, pest detection.

Deanne DiPietro, Technical Projects Coordinator, California Resources Agency, CERES
Liaison to CERES and ICE (UC Davis); experience in landowner and volunteer coordination for Arundo eradication in Sonoma Creek; TAdN administrative coordinator, webmaster, and listserv manager

Tom Dudley, Ph.D. Research Associate, Dept. of Integrative Biology & Environmental Sciences Program, UC Berkeley. Member, CalEPPC Board of Directors
Research in ecology and impacts of non-native species in western streams and riparian areas; science and technical issues advisor to TAdN

Karen Gaffney, Restoration Ecologist, Circuit Rider Productions, Inc. Past President, Society for Ecological Restoration, California Chapter
Research on extent and impacts of Arundo on riparian ecosystems, native plant restoration.

Paul Jones, U.S. Environmental Protection Agency
Streamlining permitting process, coordinating funding opportunities, eradication in South Bay Area watersheds

Jan Lowrey, Cache Creek Conservancy Projects Manager, Cache Creek farmer/landowner
Research and implementation of NIS and erosion control options on Cache Creek

Kent Nelson, Recreation and Wildlife Resources Advisor, Environmental Services Office, CA Department of Water Resources
DWR's liaison to TAdN.

Mark Newhouser, Restoration Project Chair, Sonoma Ecology Center
Landowner permission procedures, community project planning, volunteer coordination

Dr. David Spencer, Ph.D. USDA-Agricultural Research Service, Exotic & Invasive Weed Research Unit, Weed Science Unit, UC Davis
Research in applied ecology of Arundo donax in Northern California.

**PARK DEPARTMENT**

411 Main Street
P.O. Box 3420
Chico, CA 95927
(530) 895-4872
FAX (530) 895-4825

April 13, 1999

Richard Dale, Exec. Dir.
Sonoma Ecology Center
205 1st Street, West
Sonoma, CA 95476

Dear Mr. Dale,

This letter is written in support of the Sonoma Ecology Center's proposal under the CALFED Bay-Delta Program to eradicate Arundo Donax (Giant Reed). Of particular concern is the infestation of Arundo Donax in Bidwell Park along Big Chico Creek. The City of Chico has an aggressive plan to control invasive non-native plant material of which Arundo Donax is a high priority. Working our way down the watershed, future priorities include Lindo Channel and Little Chico Creek.

The Sonoma Ecology Center has a history of successful Arundo eradication and coordination of similar efforts in Northern and Central California through their ongoing work with Team Arundo del Norte.

As is well documented, Arundo Donax can significantly and negatively impact the health of riparian areas and their associated species, including several of California's listed species found in the Bay-Delta Estuary and its associated watersheds. The fall Chinook salmon that migrate up Big Chico Creek are endangered. Arundo will only aggravate their situation. It is further documented that Arundo can increase flooding and property damage as well as shift the composition of riparian vegetation toward an Arundo monoculture and create a high fire risk condition.

We welcome and appreciate any effort to focus more resources on the control and ultimate eradication of Arundo. Funding will also assure adequate coordination, technical support and monitoring, so that a maximum amount of Arundo can be eliminated over time.

We support your application and applaud your leadership in seeking support from the CALFED Bay-Delta Program for eradication of Arundo Donax.

Sincerely,

Tom Lando
City Manager

cc: City Council
BPPC
PKDir

COMMITTEES:
 Chair, SELECT COMMITTEE
 ON CALIFORNIA WINE
 MEMBER:
 AGRICULTURE
 APPROPRIATIONS
 ENVIRONMENTAL SAFETY
 & TOXIC MATERIALS
 ENVIRONMENTAL ORGANIZATION
 RULES

Assembly California Legislature

PATRICIA WIGGINS
 ASSEMBLYMEMBER, SEVENTH DISTRICT

April 14, 1999

Lester A. Snow, Executive Director
 CALFED Bay-Delta Program
 1416 Ninth Street, Suite 1155
 Sacramento, California 95814

Dear Mr. Snow:

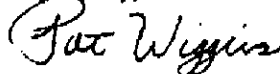
This letter is written in support of the Sonoma Ecology Center's proposal to eradicate *Arundo donax* along streams in Bay-Delta watersheds. The Sonoma Ecology Center has a successful history of both *Arundo* eradication in their local area, and the coordination of similar efforts elsewhere in Northern and Central California through their ongoing work with Team *Arundo del Norte*.

As it is well documented, *Arundo donax* can have a significantly negative impact on the health of riparian areas and their associated species. These species found in the Bay-Delta Estuary and its associated watersheds include several of those on California's list of endangered and threatened species. Furthermore, it is documented that *Arundo* increases flooding and the resulting property damage, as well as shifts the composition of riparian vegetation toward an *Arundo* monoculture. This riparian monoculture is not only biologically impoverished, but it is also in a high-risk fire condition.

Funding this proposal would implement several ready projects that could benefit the Bay-Delta Estuary, its watersheds, and their communities. It would also assure adequate coordination, technical support and monitoring, so that a maximum amount of *Arundo* can be eliminated.

Once again I want to thank you for consideration of this grant proposal and I urge you to give it your full support.

Sincerely,



PAT WIGGINS
 Assemblywoman, Seventh District

PW:ij

- ☐ STATE CAPITOL
 P.O. BOX 942849
 SACRAMENTO, CA 94249-0001
 (916) 319-2007
 (916) 319-2107 FAX
 DISTRICT OFFICES
- ☐ 50 D STREET, SUITE 301
 SANTA ROSA, CA 95404
 (707) 546-4500
 (707) 546-9031 FAX
- ☐ 840 TUOLUMNE STREET
 SUITE B
 VALLEJO, CA 94590
 (707) 849-2307
 (707) 849-2311 FAX
- ☐ 1040 MAIN STREET
 SUITE 101
 NAPA, CA 94559
 (707) 258-6307
 (707) 258-8205 FAX

TOTAL P.01

Santa Clara Valley Water District



5750 ALMADEN EXPRESSWAY
SAN JOSE, CA 95118-3686
TELEPHONE (408) 266-2600
FACSIMILE (408) 266-0271

AN AFFIRMATIVE ACTION EMPLOYER

April 14, 1999

Team Arundo del Norte
Sonoma Ecology Center
205 1st St. West
Sonoma, CA 95476
Attn: Caitlin Cornwall

Dear Ms. Cornwall,

Subject: Team Arundo del Norte Vegetation Control Project

This letter is to acknowledge support for control and eradication of *Arundo donax* in Santa Clara County. The Santa Clara Valley Water District, as the agency with jurisdiction over riparian areas for the county, has historically viewed Arundo as a noxious plant species that undermines the District's mission of providing flood control. The invasive nature of Arundo has diminished channel capacity in waterways throughout the county. The District has an aggressive Arundo control program on north county facilities where it has either fee title or a maintenance easement. The District's inability to use herbicides on south county facilities hinders Arundo control in those areas.

Your grant application includes San Francisquito Creek, a facility where we have jurisdiction as a target site for control of *Arundo donax*. The San Francisquito Creek watershed is an unimproved channel with multiple jurisdictions from county and local entities. There is a significant flood risk through the lower reaches of the creek due to the high degree of urbanization. The District has not historically done much work in the creek due to our lack of fee title and easement in the watershed. This fact will define what level of involvement we are able to have in future efforts to control Arundo, as well as other exotics.

Due to the District's jurisdiction over riparian areas in the county, all activities go through our Community Projects Review Division and permits are granted based on whether they are in keeping with District policy and mandates. We can commit to granting permits for control of *Arundo donax* on San Francisquito Creek, as well as other waterways under our jurisdiction. The District's participation in the San Francisquito Creek CRMP may allow the agency to become involved in a more active manner as discussions continue on strategic control of exotics throughout the county.

Arundo donax poses a significant threat to both public safety and the health of riparian areas in Santa Clara County. The District prioritizes its work by looking at whether our agency has fee title or maintenance easement on a facility. We also look at the scope of the problem and create a priority based on all of the work that needs to be done.

San Francisquito Creek, under this prioritization system, would be a low priority facility due to the District's lack of fee title or maintenance easement.

Ms. Caitlin Cornwall

2

April 14, 1999

The District's Board of Directors is aware of the threat posed by biological pollution and the negative impacts that it can have on the health of watersheds. Policies are being adapted to look at the threat to the watersheds from Arundo as well as other invasive species. As resources become more available, there is potential for a greater level of involvement in the control and eradication of Arundo on all of the District's facilities.

At this point in time the Santa Clara Valley Water District will facilitate your project in whatever manner is appropriate to our agency's current policies.

We hope to continue to participate in this project as it gains momentum. Please feel free to contact Mr. Mark Wander at (408) 265-2607 ext. 2459 or Mr. Rick Austin at ext. 2573 with any questions or comments regarding this issue.

Sincerely,


Group Manager
Operations and Maintenance Group

Cc: Mark Wander, Dennis Ely, Rick Austin, Cindy Roessler, Scott Akin, File

TOTAL P.03

I - 0 2 0 2 8 4

I-020284

April 14, 1999

Dear Pam Romo:

I hereby give my permission to
have volunteers have access to
my property to cut and remove
the arundo along the creeks
in downtown Walnut Creek.

Linda Kwan
ALCA
Partnerships
1500 S Main St.
Walnut Creek, CA

MERLE D. HALL COMPANY

1835 OLYMPIC BLVD., SUITE 250 WALNUT CREEK, CA 94596 (925) 933-7030 FAX (925) 933-4180

April 14, 1999

Pam Romo
Friends of the Creek
1922 Glenhaven Avenue
Walnut Creek, CA 94595

Re: Creek along Palm Court Shopping Center

Dear Pam:

Following our conversation, please accept this letter as authorization for Friends of the Creek to access the creekside property owned by Palm Court Partners during the Fall of 1999 and 2000 for the purposes of removing the non-native bamboo/reed type plant, "Arundo Donax" which is growing in and about the waterway. This permission for access is given only for the purpose stated above and for a limited time period.

In consideration for access, Friends of the Creek agrees to name Palm Court Partners, a California General Partnership, as additional insured on its insurance policy and shall also require that all participants in the clean up program, who will have access to property owned by Palm Court Partners, sign a release agreement in substantially the same form as the attached "Walnut Creek Restoration and Exotic Plant Removal Release Agreement".

Friends of the creek and Palm Court Partners agree that this temporary access shall not create any easements, right of ways, public or private, or any other encumbrance on property owned by Palm Court Partners. In addition, Friends of the Creek agree that vehicles, trucks, dumpsters, etc, which are associated with the cleanup, shall be coordinated in advance with the property manager of the center in order to minimize interference with the day to day operation of the businesses within the shopping center.

Sincerely,

MERLE D. HALL COMPANY
As Agent for Palm Court Partners



Mark T. Scheberles
Senior Property Manager

Read and Agreed:

Friends of the Creek

By: _____

It's: _____

Date: _____



April 14, 1999

Pamela Romo
President
Friends of the Creeks
1929 Glenhaven Avenue
Walnut Creek, CA 94595

Re: Removal of Arundo in Creeks within the City

Dear Ms. Romo:

The Creek Restoration and Trails Master Plan adopted by the City of Walnut Creek recommends removal of nonnative plant species within the creeks. The City supports the efforts of Friends of the Creeks to assist in removing nonnative and invasive arundo plants from San Ramon Creek, Las Trampas Creek and Walnut Creek. The City will work with Friends of the Creeks or other involved agencies to provide access to City owned property where the arundo plant exists in order to facilitate its removal.

Sincerely,

DAVID WALLACE
Assistant Planning Manager

h:\d\wecreek\arundo



Cache Creek Conservancy

April 10, 1999

Richard Dale
Sonoma Ecology Center
205 First St. West
Sonoma, CA 95476

RE: CALFED *Arundo* Removal Grant Proposal

Dear Richard:

I am writing to strongly endorse your proposal to CALFED entitled "*Arundo donax* Eradication a Project of Team Arundo del Norte". Your plan to act as a clearinghouse to obtain and distribute funding and expertise to watershed groups that want to implement *Arundo* control projects is a great approach. I wish the Cache Creek Conservancy had had the technical guidance from Team Arundo del Norte when we first got involved with the removal of non-native exotics.

As you know we are also submitting a proposal to CALFED entitled "*Tamarix* and *Arundo* Control on Cache Creek: Removal, Revegetation, Management and Education". We are looking forward to sharing results with Team Arundo del Norte (We are, of course, being optimistic that we'll be funded!). We also hope to have your input as the project progresses, and we employ adaptive management strategies to do the best job.

I encourage CALFED to fund your project, so that we can wage an effective battle against *Arundo* throughout the Bay-Delta region.

Sincerely,

Ann Brice, Ph.D.
Executive Director



IN REPLY REFER TO:

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Sacramento Fish and Wildlife Office
3310 El Camino Avenue, Suite 130
Sacramento, California 95821-6340

April 15, 1999

Sonoma Ecology Center
Attn: Caitlin Cornwall
205 First Street West
Sonoma, California 95476

Dear Ms. Cornwall:

Subject: Sonoma Ecology Center and Arundo Eradication

This letter is written in support of the Sonoma Ecology Center's interest to eradicate *Arundo donax* along streams in the Bay-Delta watersheds. The Sonoma Ecology Center has a record of successful Arundo removal as well as the coordination of such efforts in Northern and Central California through their ongoing work with Team Arundo del Norte.

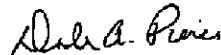
Arundo significantly and negatively impacts the health of riparian areas and their associated species, including several of California's listed species found in the Bay-Delta Estuary and its associated watersheds. Also, it is documented that Arundo can increase flooding and property damage as well as invade to the point of becoming a monoculture.

Sonoma Ecology Center's expertise and capability should be supported. Sonoma Ecology Center can implement several ready-to-go Arundo removal projects that will directly benefit the fish and wildlife of the Bay-Delta estuary and watershed. They can also provide coordination, technical support and monitoring advice to other groups working on the ground so that the efforts to eliminate Arundo can be optimized.

Nationally, regionally and locally, non-native invasive species, of which Arundo is a prime example, are a priority issue for the Fish and Wildlife Service. Arundo is bad for fish and wildlife and we would prefer that it be eradicated from the Central Valley watershed. The invasion of Arundo in the Central Valley and Bay-Delta Estuary is progressing but still at the stage where the costs of elimination are much lower than they will be ultimately. It is economically strategic to maximize efforts on elimination at this time. A strategic approach is best accomplished by coordinated efforts and this requires a coordinator.

Not only does the Fish and Wildlife Service encourage others to support the Sonoma Ecology Center's interests in Arundo elimination, but we too want to consider a proposal to partner in this effort. The Fish and Wildlife Service has a small Coastal Ecosystem Program called the San Francisco Bay Program. Funded since 1992, we have several times partnered with a variety of groups on non-native invasive species issues. While our money amounts are small we can also provide technical assistance and we believe that our participation enhances partnerships.

Sincerely,



Dale A. Pierce
Acting Field Supervisor

cc: Denny Lassuy, Portland, OR
Kim Webb, Stockton FRO

LYNN WOOLSEY
CONGRESS, CALIFORNIA

COMMITTEES:
BUDGET
EDUCATION AND THE
WORKFORCE

WASHINGTON OFFICE
29 CANAYA BUILDING
WASHINGTON, DC 20515-0600
OFFICE: (202) 225-5161

Congress of the United States
House of Representatives
Washington, DC 20515-0506

DISTRICT OFFICE:
1101 COLLEGE AVE., SUITE 200
SANTA ROSA, CA 95404
TELEPHONE: (707) 542-7182
NORTHGATE BUILDING
1050 NORTHGATE DRIVE, SUITE 140
SAN RAFAEL, CA 94903
TELEPHONE: (415) 507-8554
E-MAIL ADDRESS:
lynn.woolsey@mail.house.gov
WEB PAGE ADDRESS:
http://www.house.gov/woolsey/

April 14, 1999

CALFED Bay-Delta Program
1416 Ninth Street, Suite 1155
Sacramento, CA 95814

Dear CALFED Technical Review Panel:

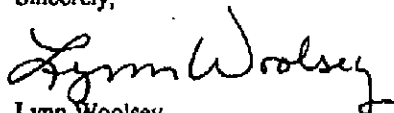
I am writing to express my support for the Sonoma Ecology Center's proposal for funding from the CALFED Bay-Delta Program. The funding is being requested to eradicate the extremely aggressive plant, *Arundo donax*, which grows along streams in Bay-Delta watersheds.

The Sonoma Ecology Center has proven its efficiency at eradicating this plant based on the successful efforts of their Team *Arundo del Norte* throughout Northern and Central California. They have also established essential support and communication among landowners, nonprofits, technical experts and agencies to ensure the strength of this project.

As I understand, *Arundo donax* can significantly and negatively impact the health of riparian areas and their associated species, including several of California's listed species found in the Bay-Delta Estuary and its associated watersheds. I am further told that *Arundo* can increase flooding and property damage in addition to shifting the composition of riparian vegetation toward an *Arundo* monoculture. This would result in a biologically impoverished and high fire risk condition.

Thank you for your careful consideration of Sonoma Ecology Center's application. It is my sincere hope that this project will receive the necessary funding to implement the projects which are planned to benefit the Bay-Delta Estuary, its watersheds and their communities.

Sincerely,


Lynn Woolsey
Member of Congress

LW:tf

PRINTED ON RECYCLED PAPER

I - 0 2 0 2 9 1

I-020291



April 6, 1999

To whom it may concern:

Sonoma Ecology Center has requested permission to use the creek area on our property as a potential site for fisheries restoration work.

It is our intention to give them access to this site. We support their effort and we look forward to working with the SEC to accomplish this important work.

Sincerely,

Kilby Stenkamp
Zabel Properties Regional Manager

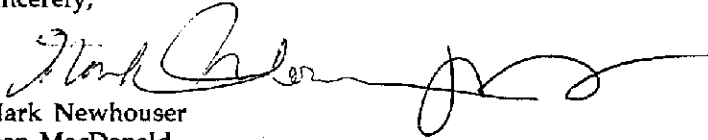
Mark Newhouser
&
Joan MacDonald

To whom it may concern:

The Sonoma Ecology Center is interested in using the creek area on our property as a potential site for fisheries restoration work. They are welcome and have our permission to pursue this work.

The Sonoma Ecology Center is continuing to support our efforts to enhance our creek. In the past, they have provided their expertise and volunteers to help us stabilize the slope below our house. The design has performed well for three wet years by preventing undercutting and erosion. Our concern now is providing wildlife habitat. We appreciate Sonoma Ecology Center efforts and we look forward to working with them as we accomplish this needed work.

Sincerely,

A handwritten signature in black ink, appearing to read 'Mark Newhouser', with a long horizontal flourish extending to the right.

Mark Newhouser
Joan MacDonald
4277 Wake robin Drive
Glen Ellen, CA 95442



Glenn County

Resource, Planning and Development Department

125 South Murdock Avenue
Willows, California 95988

916-934-6540 (Willows)

916-865-1204 (Orland)

916-934-6542-Fax

John Benoit, Director

April 13, 1999

CALFED
Sacramento, CA

RE: Support letter for Sonoma Ecology Center's Arundo Eradication Project

This letter is written in support of the Sonoma Ecology Center's proposal to eradicate *Arundo donax* along streams in Bay-Delta watersheds. Here in Glenn County there is a tremendous problem with *Arundo donax* in Lower Stony Creek, a tributary of the Sacramento River.

The Sonoma Ecology Center has a history of successful *Arundo* eradication and coordination of similar efforts in Northern and Central California through their ongoing work with Team Arundo del Norte. It is well documented that *Arundo donax* can significantly and negatively impact the health of riparian areas and their associated species, including several of California's listed species found in the Bay-Delta Estuary. It is also documented that *Arundo donax* can increase flooding and property damage as well as shift the composition of riparian vegetation toward an *Arundo donax* monoculture--a biologically impoverished and high fire risk condition.

Funding this proposal will implement several ready projects that will benefit the Bay-Delta Estuary and watersheds. This project will also provide experience, coordination, technical support and monitoring so that a maximum amount of *Arundo* can be eliminated over time. There is a great deal of landowner interest here in Glenn County to eliminate *Arundo donax* in Stony Creek and we urge your support of this project.

Yours truly,

John Benoit,
Chief Deputy Director
Public Works and Development Services Agency

The Resources Agency

Gray Davis
Governor



of California

Mary D. Nichols
Secretary

California Conservation Corps • Department of Boating & Waterways • Department of Conservation
Department of Fish & Game • Department of Forestry & Fire Protection • Department of Parks & Recreation • Department of Water Resources

April 16, 1999

Team Arundo del Norte
205 First Street West
Sonoma, CA 95476

Dear Sir/Madam:

CERES, the California Environmental Resources Evaluation System, would be happy to continue our technical assistance to Team Arundo del Norte. I was impressed by your TAdN project proposal to assist in Arundo eradication projects in the Bay Delta and Sacramento Valley and to provide an information clearinghouse for the support of Arundo control programs across the CALFED region. As you are aware the CALFED funding process is quite competitive. However, Team Arundo del Norte's mix of high technology and on ground old-fashioned hard work makes your project worthy of careful review.

Team Arundo del Norte has successfully utilized CERES' Guest Web program and the Berkeley Digital Library for the past four years. We understand and are glad to hear that you would like to undertake a customized use of the California Environmental Information Catalog as part of the Arundo Information Clearinghouse.

I have enjoyed watching your past successes in battling Arundo donax. I hope your group is able to continue its efforts to unclog California's rivers well into the future.

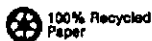
Sincerely,

A handwritten signature in dark ink, appearing to read "Gary Darling".

Gary Darling
Chief Information Officer

The Resources Agency 1416 Ninth Street, Suite 1311 Sacramento, CA 95814 (916) 653-5656 FAX (916) 653-8102
<http://ceres.ca.gov/cra/>

California Coastal Commission • California Tahoe Conservancy • Coachella Valley Mountains Conservancy • San Joaquin River Conservancy
Santa Monica Mountains Conservancy • Colorado River Board of California • Energy Resources Conservation & Development Commission
State Coastal Conservancy • State Lands Commission • State Reclamation Board • Native American Heritage Commission
San Francisco Bay Conservation & Development Commission



BUDGET INFORMATION - Non-Construction Programs

OMB Approval No. 0348-0044

SECTION A - BUDGET SUMMARY

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1.		\$	\$	\$	\$	\$ 818,045
2.						
3.						
4.						
5. Totals		\$	\$	\$	\$	\$

SECTION B - BUDGET CATEGORIES

6. Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY				Total (5)
	(1)	(2)	(3)	(4)	
a. Personnel	\$	\$	\$	\$	\$ 301,600
b. Fringe Benefits					
c. Travel					
d. Equipment					
e. Supplies					50,340
f. Contractual					321,831
g. Construction					
h. Other					11,950
i. Total Direct Charges (sum of 6a-6h)					
j. Indirect Charges					120,196
k. TOTALS (sum of 6i and 6j)	\$	\$	\$	\$	\$ 818,045
7. Program Income	\$	\$	\$	\$	\$ 0

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Standard Form 424A (Rev. 7-97)

1-020296

1-020296

SECTION C - NON-FEDERAL RESOURCES					
(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e) TOTALS	
8. <i>Arundo donax eradication</i>	\$ 38,000	\$	\$ 267,036	\$ 305,036	
9.					
10.					
11.					
12. TOTAL (sum of lines 8-11)	\$	\$	\$	\$ 305,036	
SECTION D - FORECASTED CASH NEEDS					
	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal	\$	\$	\$	\$	\$
14. Non-Federal					
15. TOTAL (sum of lines 13 and 14)	\$ 600,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000
SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT					
(a) Grant Program	FUTURE FUNDING PERIODS (Years)				
	(b) First	(c) Second	(d) Third	(e) Fourth	
16. <i>Arundo donax eradication</i>	\$ 109,000	\$ 109,000	\$	\$	
17.					
18.					
19.					
20. TOTAL (sum of lines 16-19)	\$ 109,000	\$ 109,000	\$	\$ 218,000	
SECTION F - OTHER BUDGET INFORMATION					
21. Direct Charges:		22. Indirect Charges:			
23. Remarks:					

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NONDISCRIMINATION COMPLIANCE STATEMENT

FD-15 (REV. 3-95) FMC

COMPANY NAME

SONOMA ECOLOGY CENTER

The company named above (hereinafter referred to as "prospective contractor") hereby certifies, unless specifically exempted, compliance with Government Code Section 12990 (a-f) and California Code of Regulations, Title 2, Division 4, Chapter 5 in matters relating to reporting requirements and the development, implementation and maintenance of a Nondiscrimination Program. Prospective contractor agrees not to unlawfully discriminate, harass or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, disability (including HIV and AIDS), medical condition (cancer), age, marital status, denial of family and medical care leave and denial of pregnancy disability leave.

CERTIFICATION

I, the official named below, hereby swear that I am duly authorized to legally bind the prospective contractor to the above described certification. I am fully aware that this certification, executed on the date and in the county below, is made under penalty of perjury under the laws of the State of California.

Richard Dale

OFFICIAL'S NAME

4/15/99

DATE EXECUTED

EXECUTED IN THE COUNTY OF
SONOMA

PROSPECTIVE CONTRACTOR'S SIGNATURE

Executive Director

PROSPECTIVE CONTRACTOR'S TITLE

SONOMA ECOLOGY CENTER

PROSPECTIVE CONTRACTOR'S LEGAL BUSINESS NAME

APPLICATION FOR FEDERAL ASSISTANCE

OMB Approval No. 0348-0043

2. DATE SUBMITTED <div style="text-align: center; font-size: 1.2em;">4-16-1999</div>		Applicant Identifier 	
3. DATE RECEIVED BY STATE 		State Application Identifier 	
4. DATE RECEIVED BY FEDERAL AGENCY 		Federal Identifier 	

TYPE OF SUBMISSION: <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <input type="checkbox"/> Application <input checked="" type="checkbox"/> Construction <input checked="" type="checkbox"/> Non-Construction </div> <div style="width: 45%;"> <input type="checkbox"/> Preapplication <input type="checkbox"/> Construction <input type="checkbox"/> Non-Construction </div> </div>		APPLICANT INFORMATION Legal Name: SONOMA ECOLOGY CENTER Address (give city, county, State, and zip code): 205 First Street West, Sonoma, Ca 95476 EMPLOYER IDENTIFICATION NUMBER (EIN): <div style="border: 1px solid black; padding: 2px; display: inline-block;">94-3136500</div>																						
TYPE OF APPLICATION: <div style="display: flex; justify-content: space-around;"> <input checked="" type="checkbox"/> New <input type="checkbox"/> Continuation <input type="checkbox"/> Revision </div> Revision, enter appropriate letter(s) in box(es): <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> A. Increase Award B. Decrease Award C. Increase Duration D. Decrease Duration Other (specify): _____		7. TYPE OF APPLICANT: (enter appropriate letter in box) <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> A. State B. County C. Municipal D. Township E. Interstate F. Intermunicipal G. Special District </div> <div style="width: 45%;"> H. Independent School Dist. I. State Controlled Institution of Higher Learning J. Private University K. Indian Tribe L. Individual M. Profit Organization N. Other (Specify) <u>Non-Profit org.</u> </div> </div>																						
CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER: <div style="border: 1px solid black; padding: 2px; display: inline-block;">00-0000</div> TITLE: AREAS AFFECTED BY PROJECT (Cities, Counties, States, etc.): CALIFORNIA		9. NAME OF FEDERAL AGENCY: 11. DESCRIPTIVE TITLE OF APPLICANT'S PROJECT: ARUNDO DONAX ERADICATION AND COORDINATION																						
PROPOSED PROJECT <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Start Date</td> <td style="width: 15%;">Ending Date</td> <td style="width: 70%;">a. Applicant</td> </tr> <tr> <td>10-99</td> <td>10-02</td> <td>CA - 01</td> </tr> </table>		Start Date	Ending Date	a. Applicant	10-99	10-02	CA - 01	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">b. Project</td> <td style="width: 85%;">all CA</td> </tr> </table>		b. Project	all CA													
Start Date	Ending Date	a. Applicant																						
10-99	10-02	CA - 01																						
b. Project	all CA																							
ESTIMATED FUNDING: <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Federal</td> <td style="width: 10%;">\$</td> <td style="width: 10%;">600,000.00</td> </tr> <tr> <td>Applicant</td> <td>\$</td> <td>14,500.00</td> </tr> <tr> <td>State</td> <td>\$</td> <td></td> </tr> <tr> <td>Local</td> <td>\$</td> <td></td> </tr> <tr> <td>Other</td> <td>\$</td> <td>7,9536.00</td> </tr> <tr> <td>Program Income</td> <td>\$</td> <td></td> </tr> <tr> <td>TOTAL</td> <td>\$</td> <td>694,036.00</td> </tr> </table>		Federal	\$	600,000.00	Applicant	\$	14,500.00	State	\$		Local	\$		Other	\$	7,9536.00	Program Income	\$		TOTAL	\$	694,036.00	16. IS APPLICATION SUBJECT TO REVIEW BY STATE EXECUTIVE ORDER 12372 PROCESS? a. YES. THIS PREAPPLICATION/APPLICATION WAS MADE AVAILABLE TO THE STATE EXECUTIVE ORDER 12372 PROCESS FOR REVIEW ON: DATE _____ b. No. <input checked="" type="checkbox"/> PROGRAM IS NOT COVERED BY E. O. 12372 <input type="checkbox"/> OR PROGRAM HAS NOT BEEN SELECTED BY STATE FOR REVIEW	
Federal	\$	600,000.00																						
Applicant	\$	14,500.00																						
State	\$																							
Local	\$																							
Other	\$	7,9536.00																						
Program Income	\$																							
TOTAL	\$	694,036.00																						
17. IS THE APPLICANT DELINQUENT ON ANY FEDERAL DEBT? <input type="checkbox"/> Yes If "Yes," attach an explanation. <input checked="" type="checkbox"/> No		18. TO THE BEST OF MY KNOWLEDGE AND BELIEF, ALL DATA IN THIS APPLICATION/PREAPPLICATION ARE TRUE AND CORRECT, THE DOCUMENT HAS BEEN DULY AUTHORIZED BY THE GOVERNING BODY OF THE APPLICANT AND THE APPLICANT WILL COMPLY WITH THE ATTACHED ASSURANCES IF THE ASSISTANCE IS AWARDED.																						
Type Name of Authorized Representative Richard Dale		b. Title Executive Director																						
Signature of Authorized Representative 		c. Telephone Number 707 996-9744																						
		e. Date Signed 4-16-99																						

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